



BOSS PRODUCTS
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VBX 8000 V-BOX SPREADER INSTALLATION & OWNER'S MANUAL

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BOSS Products / Northern Star Industries, Inc. reserves the right under its continuous product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used herein.

Patents Pending

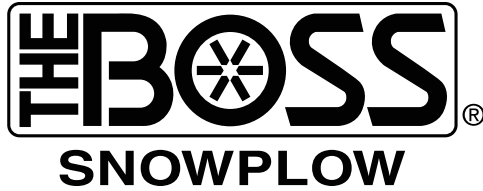
PUSHING THE EDGE

VBS14572

WARNING

Serious injury or death can result if you do not follow these instructions and procedures which are outlined further within your owner's manual.

- Many newer trucks are equipped with air bags. DO NOT under any circumstances disable or remove or relocate any sensors or other components related to the operation of the air bags.
- Overloading could result in an accident or damage. NEVER exceed the vehicle's Gross Vehicle Weight Rating or the Front or Rear Gross Axle Weight Ratings.
- This spreader is restricted to the use of dry, free-flowing salt, sand, and sand/salt mix. NEVER run other materials through the spreader.
- DO NOT attempt to mount or remove the spreader with material in it.
- Turn spreader off before filling, mounting, removing, servicing, or cleaning.
- DO NOT operate spreader within 25 feet of bystanders.
- DO NOT climb into or ride on spreader.
- Keep hands, feet, and clothing away from moving parts and mounting points.
- Spreader must be mounted to vehicle when loading material.
- Ratchet Straps must be installed and properly tightened at all times.
- Read owner's manual before operating or servicing spreader.
- NEVER store material in hopper.



A REVOLUTION AGAINST SNOW & ICE

Congratulations on purchasing the finest V-Box spreader made! The BOSS sets the standard for quality, reliability, craftsmanship, and performance. Our products are designed, built, and proven in Michigan's rugged Upper Peninsula, where winter is a way of life. And we back it all up with exceptional customer service and satisfaction. We're not just setting the standard. We're leading the way.

The BOSS V-BOX SPREADER has been carefully designed and built for years of carefree performance.

To keep your BOSS V-BOX SPREADER in top shape, take a few minutes to study this manual. It will show you how to use and service the BOSS V-BOX SPREADER, familiarize you with all of its parts, and give you helpful tips on spreading salt and other materials.

If you have further questions or concerns please contact your local BOSS DEALER.

IMPORTANT

Keep this section for your record.

Date Purchased: _____

Model Purchased: _____

Spreader Serial Number: _____

PURCHASED FROM

Dealer Name: _____

Dealer Address: _____

Dealer Phone No.: _____

Tips on Spreading

- Know the area you are working, hidden obstructions such as curbs, sidewalks, pipes, etc. can cause damage to your spreader or vehicle.
- Do not let the ice build-up; always start as soon as possible.
- Always wear your seatbelts when spreading.
- Always remember to spread at a safe speed. Spreading faster can be hard on your vehicle as its load is greatly increased.
- NEVER ride on or get body parts into spreader while servicing or operating.
- For more spreading tips please visit our website at www.bossploow.com.

Wiring Installation Procedure

WARNING

Before starting any Electrical Wiring Procedure make sure the engine is not running and that the engine has had sufficient time to cool down. Failure to do so may result in serious bodily injury or death.

WARNING

Before starting any Electrical Wiring Procedure make sure to disconnect the battery. Failure to do so may result in serious bodily injury or death.

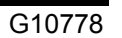
WARNING

DO NOT connect ground cable to negative terminal at this time. All wiring should be installed before completing that step.

Note: This Wiring Installation Procedure is intended for use with the VBX family of slide-in spreaders.

1. Refer to Figure 1 & Figure 2. Begin at the rear of the vehicle. Secure Molded Connectors #1 & #2 near the center of the rear bumper using Cable Ties and Power/Ground Cable Mount blocks.
2. Route the harness along the driver side frame rail and into the engine compartment. Keep harness away from hot or moving parts. Secure using Cable Ties.
3. Feed the 4-pin connector (Display Connector #8) through the firewall, into the cab, and to a location near the spreader control. Secure using Cable Ties (MSC04088).
4. Install Fuse Block within approximately 12" of battery so Power Cable can be attached to positive battery terminal and one side of fuse. Make sure the top of the block is accessible.
5. Remove Cover from Fuse Block.
6. Connect 5/16" Ring Connector #9 (Red P/G Cable) to the Fuse Block (make sure 150 amp fuse is in place).
7. Connect 24" Power Cable to opposite side of Fuse Block.
8. Replace Cover on Fuse Block.
9. Connect 24" Power Cable to Battery Positive.
10. Connect Red Fused Tap Spade Connector #6 to keyed fuse source.
11. Connect Red Non-Fused Tap Spade Connector #5 to CHMSL fuse source if available.
12. Use provided Scotch Lock to connect White Bullet Connector #4 to rear tail-light ground wire.
13. Use provided Scotch Lock to connect Brown Bullet Connector #3 to rear running lamp wire.
14. Wrap all excess wire and secure in the engine compartment.
15. Secure all wiring to the frame and inside of the cab using Cable Ties.
16. Connect 5/16" Ring Connector #10 (Black P/G Cable) to the Negative battery terminal.

Figure 1. Vehicle Side Harness Diagram (VBS14283)



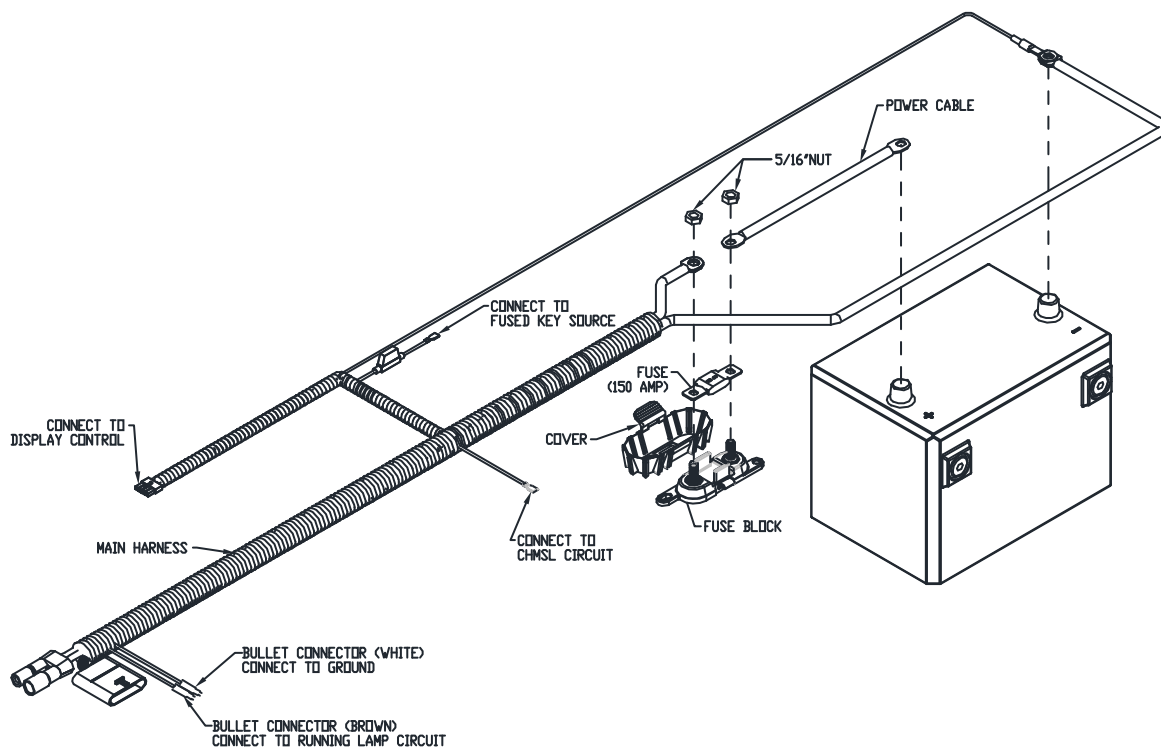


Figure 2. Vehicle Side Harness Diagram (VBS14283)

G10777

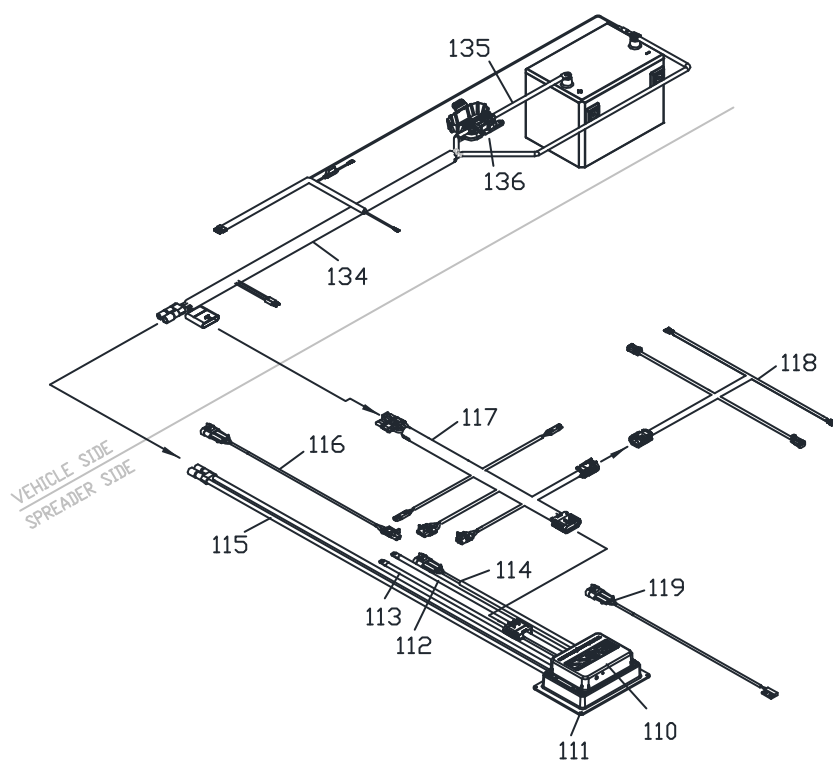


Figure 3. Full Wiring Diagram

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Tie-Down D-Ring Installation

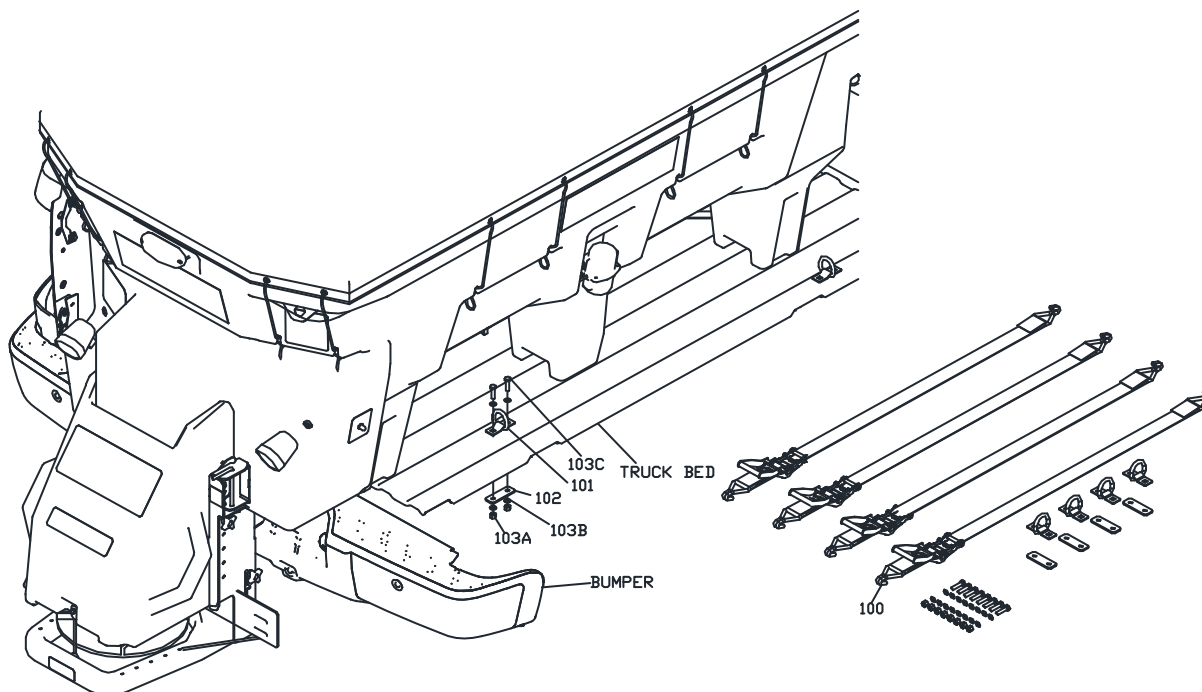


Figure 4. Tie-Down D-Ring Installation

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ITEM #	QTY.	PART #	DESCRIPTION
100	4	VBS14547	RATCHET STRAP, 2" X 10'
101	4	VBS14549	D-RING
102	4	VBS14550	BEDMOUNT PLATE
103A	8	HDW05854	NYLON LOCK NUT, 3/8"-16, ST/ST
103B	16	HDW05859	FLAT WASHER, 3/8" ST/ST
103C	8	HDW05995	HHCS, 3/8"-16 X 1-1/2" STST

1. Mark and drill holes for D-Ring (101) using 7/16" drill bit.

NOTE: D-Rings should be installed through or in proximity to frame cross-members.

2. Using 3/8"-16 X 1-1/2" Hex Head Cap Screws (103C), 3/8"-16 Nylon Lock Nuts (103A), 3/8" Flat Washers (103B), and Bedmount Plates (102), mount D-Rings to truck in four locations pictured in Figure 4 & 5. Dimensions are approximate

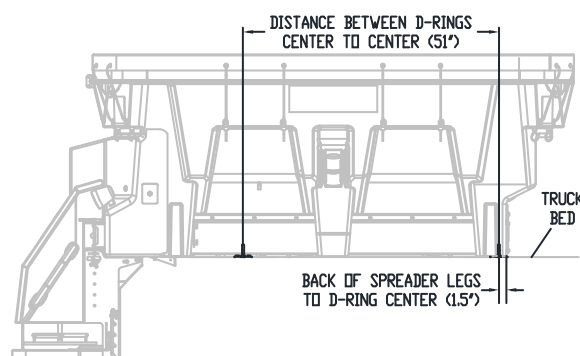


Figure 5. Tie-Down D-Ring Dimensions G10801

Lifting Procedure

WARNING

In order to prevent injury or damage to the product, only lift spreader while empty by recommended lifting points.

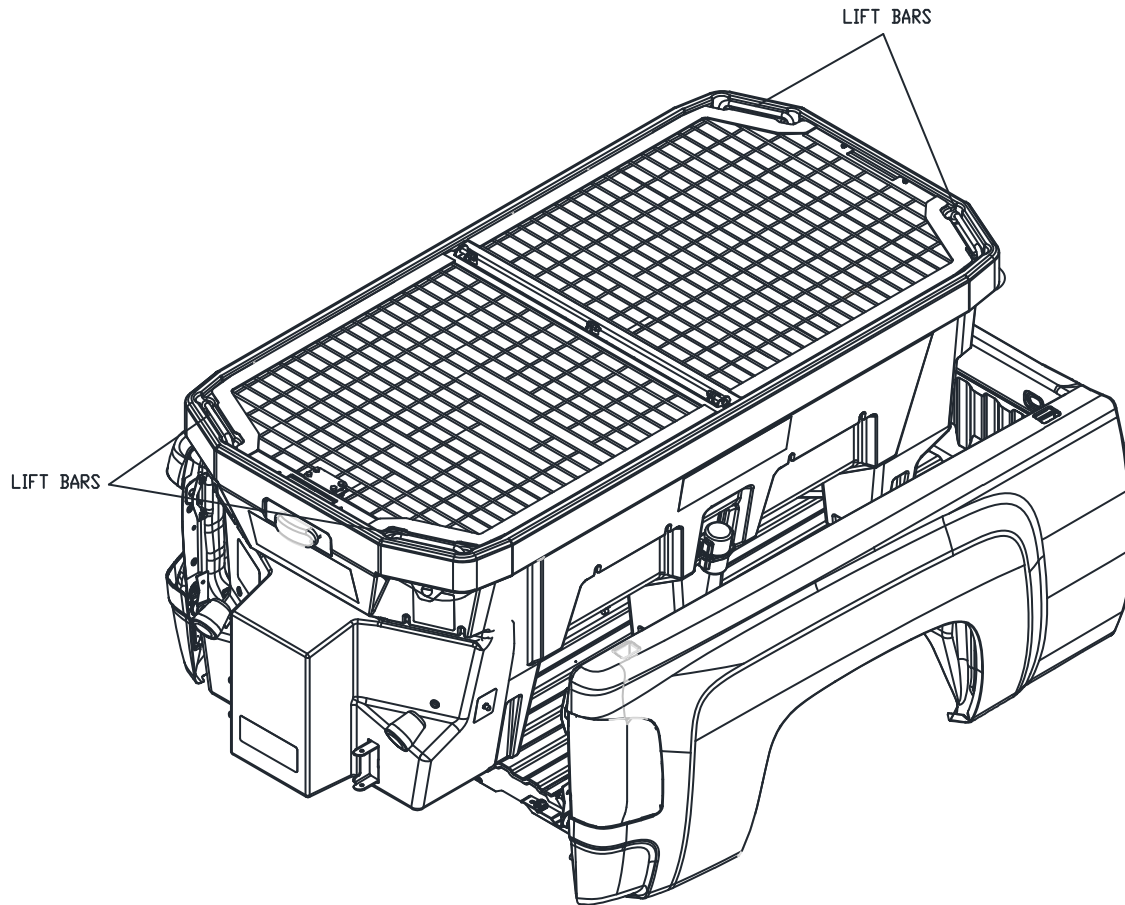


Figure 6. Recommended Lifting Points

G10781

1. Remove tailgate from truck.
2. Using installed Lift Bars, lift and set spreader on the centerline of the truck bed as shown in Figure 6.

Spreader Installation Procedure

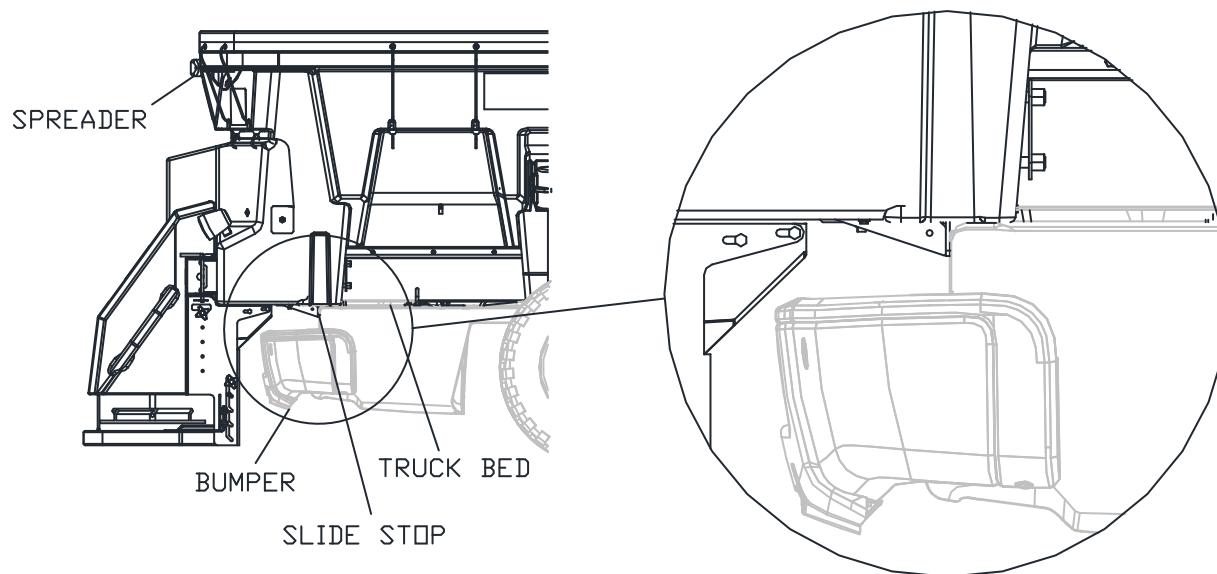


Figure 7. Slide Stop Installation

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1. Slide spreader toward cab until Slide Stop hits truck bed (See Figure 7).
2. Drill four 7/16" holes into truck bed aligned with Slide Stop holes.
3. Using four 3/8"-16 X 1-1/2" Hex Head Cap Screw, four 3/8"-16 Nylon Lock Nuts and sixteen 3/8" Flat Washers, attach Slide Stop to truck.
4. Rear of spreader must be no closer than flush with back of truck box (See Figure 8).
5. If step 3 cannot be achieved, refer to Slide Stop Adjustment procedure on next page.
6. If step 3 is OK, proceed to Ratchet Strap Installation.

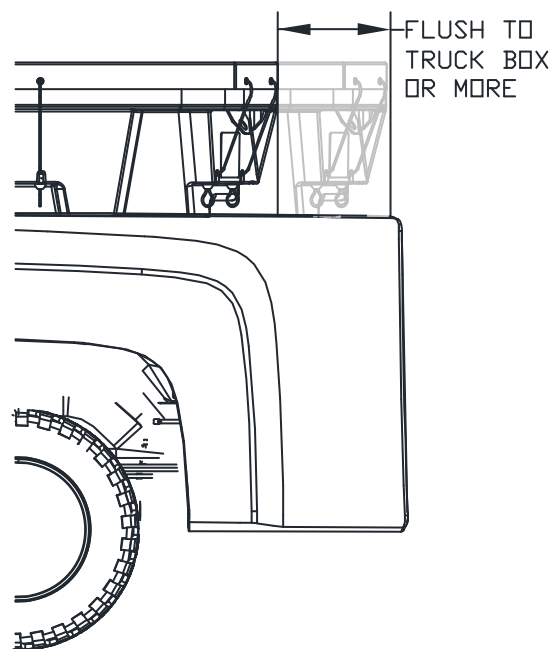


Figure 8. Spreader Orientation.....G10802

Slide Stop Adjustment

1. Slide Stop can be adjusted up to two inches to make sure the spreader is not past flush with back of truck box.
2. To adjust, remove 3/8" Carriage bolts and nuts holding slide stop in place.
3. Slide spreader out to desired position (1" increments are available). See Figure 9.
4. Re-install hardware making sure to tighten securely

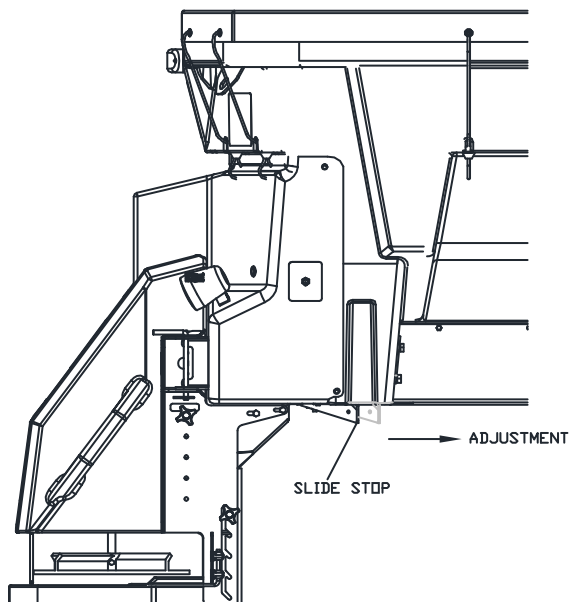


Figure 9. Slide Stop Adjustment G10775

Spacer Installation

1. Measure distance from front of truck box to spreader legs.
2. Build Spacer as pictured in Figure 10 using 2" X 8" boards.
3. For Pintle Chain units, delete the middle spacer.
4. Install between spreader and front of truck box.

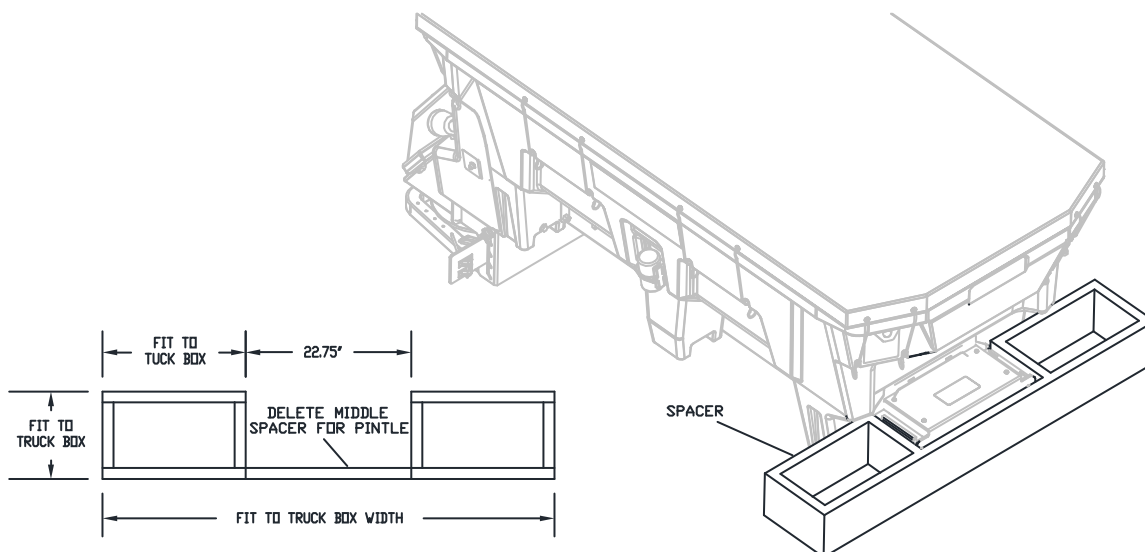


Figure 10. Spacer Installation

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Ratchet Strap Installation Procedure

! WARNING

Ratchet Straps must be securely attached at all times. Failure to do so could result in personal injury or property damage.

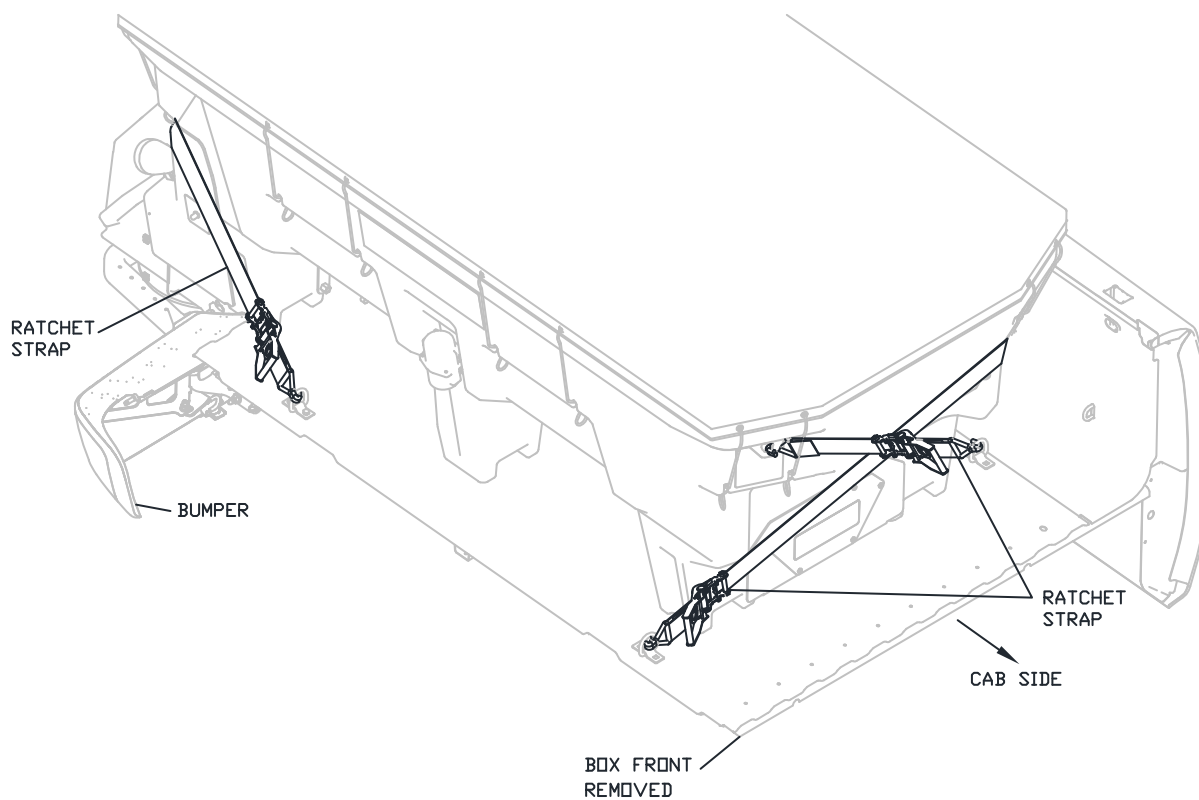


Figure 11. Ratchet Strap Installation & Orientation

G10785

1. Orient Ratchet Straps as shown in Figure 11.
2. Tighten straps securely and evenly.
3. Check straps periodically for tension. Re-tighten as necessary.

Spinner Assembly Installation

1. Attach Adjustment Assembly to Spinner Assembly in position shown using 5/16" Flat Washers (146) and Thumb Screws (19). See Figure 12.

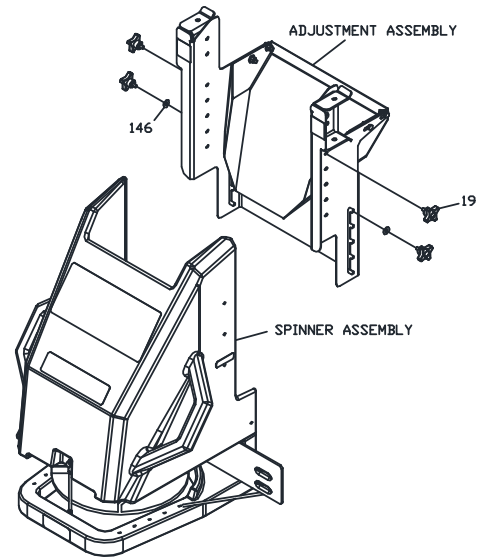


Figure 12. Spinner Assembly

G10771

Spinner Assembly Attachment

2. Remove Attachment Pins (18) from Spinner Assembly.
3. Attach Spinner Assembly to Spreader, plug in harness, and re-install pins as shown in Figure 13.

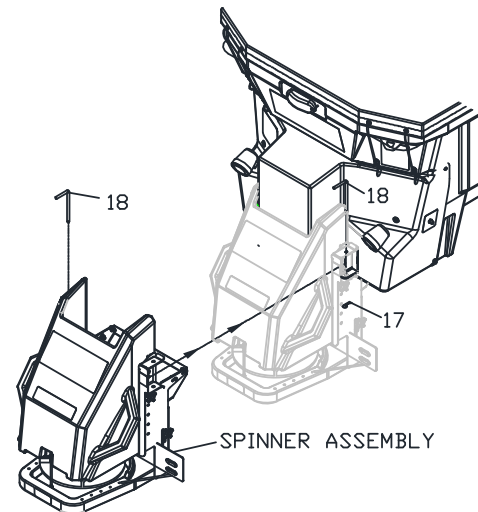


Figure 13. Spinner Assembly Attach

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Spinner Assembly Adjustment

4. Spinner Assembly can be adjusted up to 8 inches in 2 inch increments for vehicles with higher beds. See Figure 14.

NOTE: Unit should be assembled so height from ground to bottom of spinner assembly is approximately 24".

5. Remove two upper Thumb Screws. While holding Spinner Assembly in place, loosen lower Thumb Screws.
6. Slide Assembly down to desired height making sure it rests in bottom of slot. Re-insert and tighten top Thumb Screws.
7. Tighten all remaining Thumb Screws.

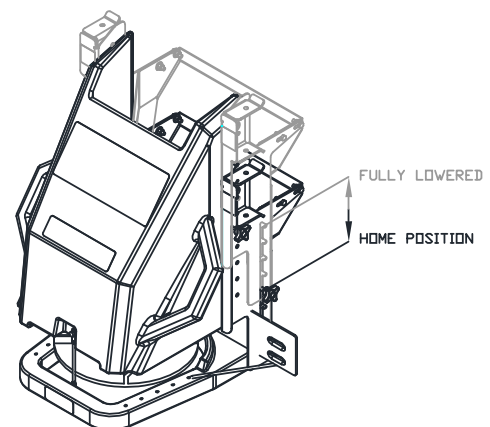


Figure 14. Spinner Assembly Adjust

G10772

Spinner Assembly Removal and Swing Away / Unload Procedures

WARNING

In order to prevent injury or damage to the product, the Spinner Assembly must be completely empty when attaching or detaching it from the vehicle.

WARNING

In order to prevent injury or damage to the product, the Spinner Assembly must be completely empty when swinging unit away from spreader.

Spinner Assembly Removal Procedure

1. The Spreader must be STOPPED before proceeding.
2. Refer to Figure 15. Unplug Spinner Assembly Harness. Remove Cotter Pins (17) and Attachment Pins (18)
3. Remove Spinner Assembly.
4. Insert Attachment Pins (18) and Cotter Pins (17) back into Spinner Assembly for storage.

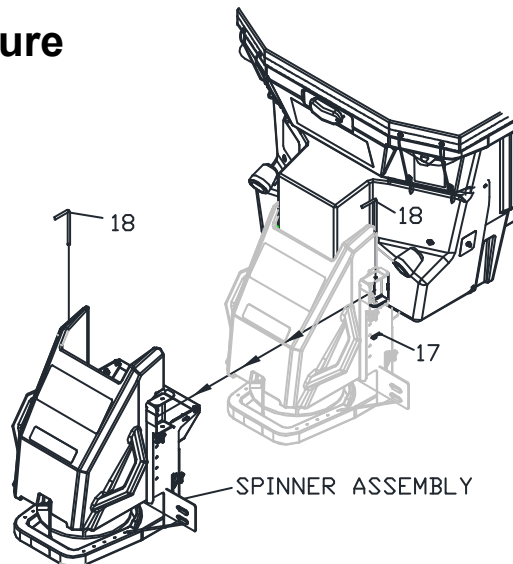


Figure 15. Spinner Assembly Attach G10774

Swing Away / Unload Procedure

5. The Spreader must be STOPPED before proceeding.
6. Position Spreader in area where material is to be deposited.
7. Unplug Spinner Harness, remove Driver Side Cotter Pin (17) and Attachment Pin (18).
8. Swing out Spinner Assembly toward Passenger Side of vehicle. See Figure 16.

NOTE: DO NOT move vehicle at any time with Spinner Assembly swung out.

9. Push and hold Dump Switch to activate Spreader and unload material.
10. Swing Spinner Assembly back into place and re-connect Attachment Pin, Cotter Pin, and Spinner Harness.

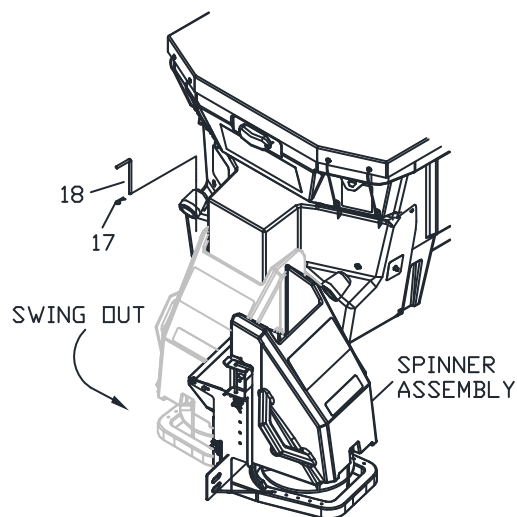


Figure 16. Spinner Assembly Attach G10783

Display Controller Installation Procedure

ITEM #	QTY.	PART #	DESCRIPTION
1	4	HDW01766	SCREW,SHEET METAL, 12 X 1/2
2	2	HDW14462	CARRIAGE BOLT, 1/4-20 X 1/2, ST/ST
133	2	HDW14463	THUMB NUT,1/4-20
4	4	HDW17833	SCREW,6-19 X 1/4 PH PAN
130	1	MSC17827	DISPLAY CONTROL
132	1	VBS14460	MOUNT BRACKET
131	1	VBS14461	SLIDE BRACKET

1. Display Controller (130) should be mounted to an easily accessible position in the cab.
2. Choose position that will not interfere with operation of the vehicle or visibility. DO NOT mount in a location that an occupant could contact during a crash.

Option 1:

3. Use included DUAL LOCK velcro strips to mount to flat surface.

Option 2:

4. Attach the Mount Bracket using two supplied #12 Sheet Metal Screws (1).
5. Assemble the Display Controller onto the Sliding Bracket (131) using four 6-19 Pan Head Screws (4).
6. Assemble Sliding Bracket to Mount Bracket using 1/4"-20 X 1/2" Carriage Bolts (2) and 1/4"-20 Thumb Nuts (133). Secure in position so screen is clearly visible to driver.

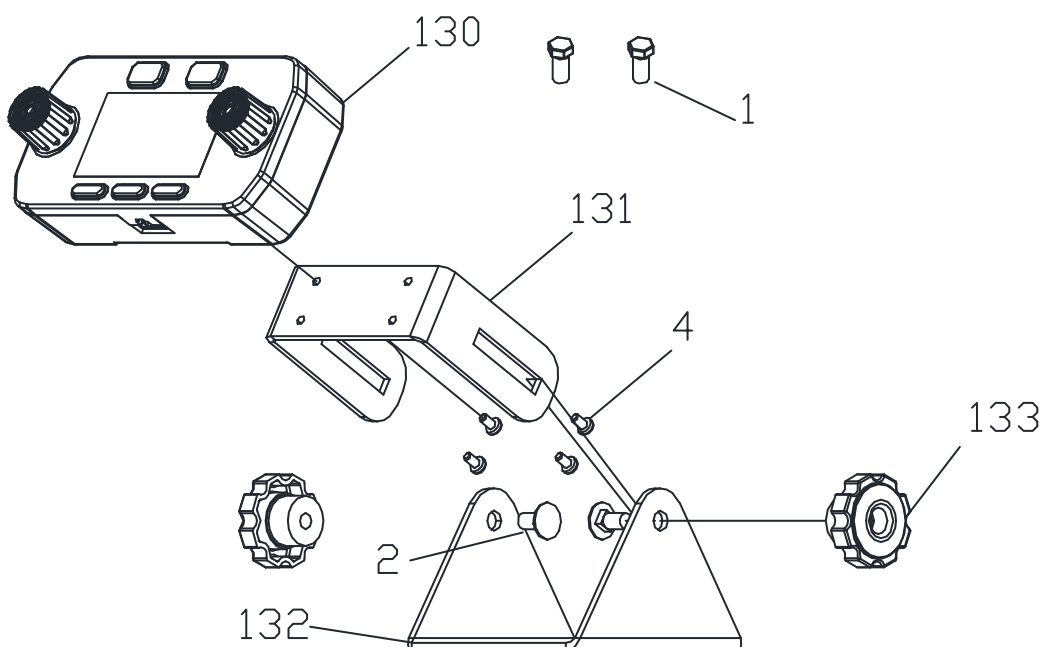


Figure 17. Display Controller Installation Procedure

G10786

Display Controller Functions/Screens

MAIN SCREEN (Figure 18)

START/STOP button: Turns the feeder, spinner, and vibrator (if active) motors on/off.

VIBRATE button: Cycles the vibrator between active and inactive modes.

NOTE: Vibrator will only run when feeder is on.

LIGHT button: Turns the rear lights on/off.

BLAST button: Sends momentary full power to feed and spinner motor in 2 second bursts.

FEED SPEED Dial: Increases feed motor speed when turned clockwise and decreases speed when turned counterclockwise.

SPINNER SPEED Dial: Increases spinner motor speed when turned clockwise and decreases speed when turned counterclockwise.

MODE button: Switches between screens. (Main Screen & Adjustment Screen)

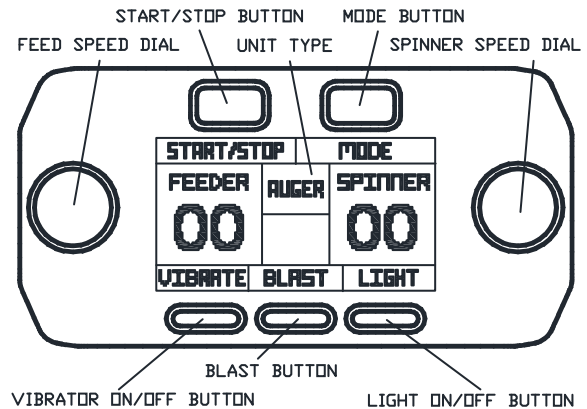


Figure 18.

G10787

ADJUSTMENT SCREEN (Figure 19)

BEEPER button: Turns the beeper sound on/off.

VIB # button: Adjusts the vibration to four possible levels (4 maximum to 1 minimum)

LIGHT # button: Adjusts brightness level of rear lights (4 maximum to 1 minimum)

DISP # button: Adjusts brightness level of display backlight (4 maximum to 1 minimum)

BATTERY VOLTAGE INDICATOR: Displays estimated battery voltage of vehicle.

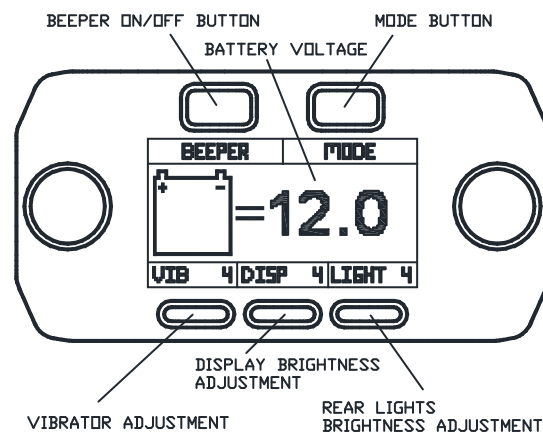


Figure 19.

G10788

Display Controller Indicator Graphics

X: Controller has no communication with motor control module.

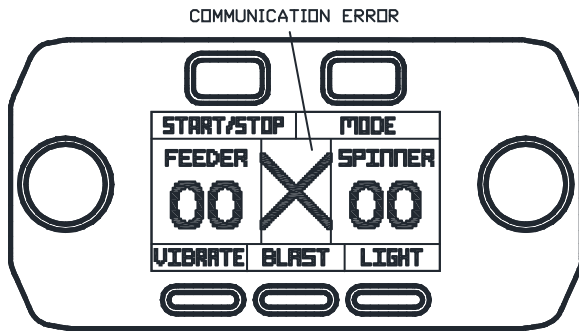


Figure 20.

G10789

BUTTON STUCK: One of the buttons is depressed when control is powered up or stuck down. Will disappear when condition goes back to normal.

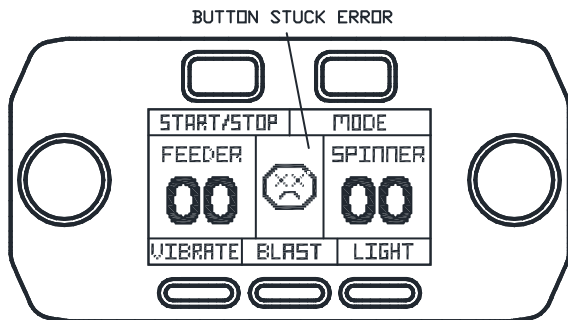


Figure 21.

G10790

VIB ERROR: Vibrator is disconnected or not running properly.

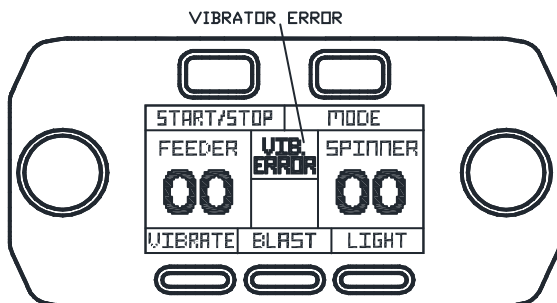


Figure 22.

G10791

FEEDER or SPINNER ERROR: Motor is disconnected or there is a circuit issue. Error codes come up individually.

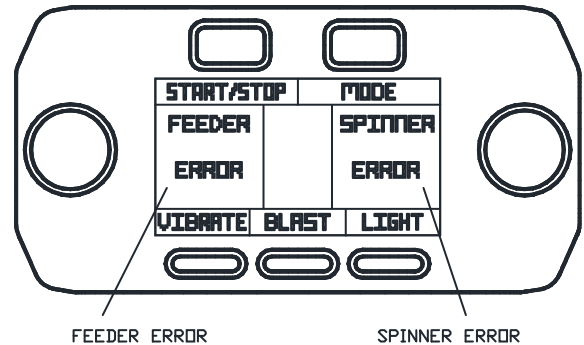


Figure 23.

G10792

FEEDER or SPINNER JAM:

Feeder/Spinner has encountered an obstacle and is trying to free itself.

NOTE: DO NOT shut down power to unit during this time. System is trying to self-clear.

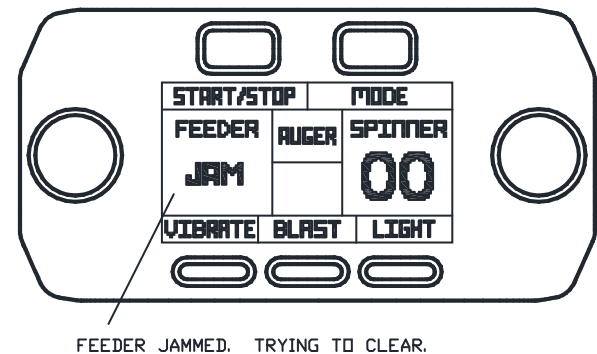


Figure 24.

G10793

FEEDER or SPINNER JAM STUCK:

Feeder/Spinner could not free itself from obstacle. Cycle Start/Stop button.

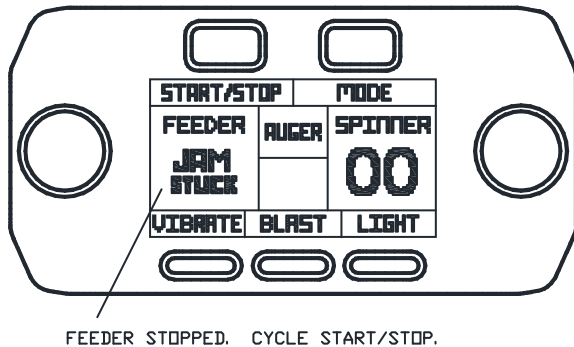


Figure 25.

G10794

MOTOR COOL: Motor and control are cooling. Will stay on for 3 minutes before allowing re-start.

NOTE: Cycling power to display control will not reset timer.

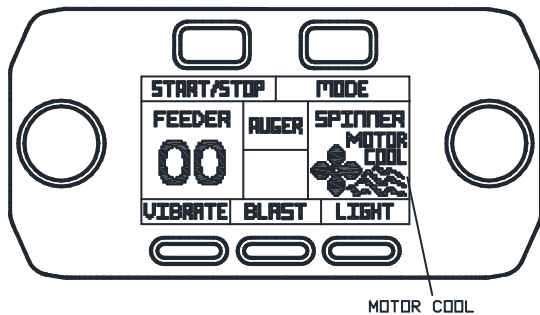


Figure 26.

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DUMP SWITCH ACTIVE: Dump switch at rear of vehicle has been activated.

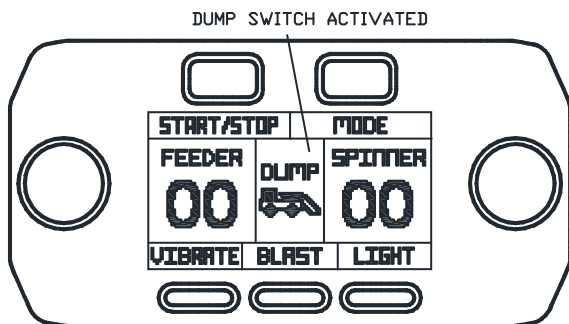


Figure 27.

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BURNT-OUT LIGHT: Rear light disconnected or burnt out. One bulb pictured equals one light out, two bulbs pictured equals two lights out.

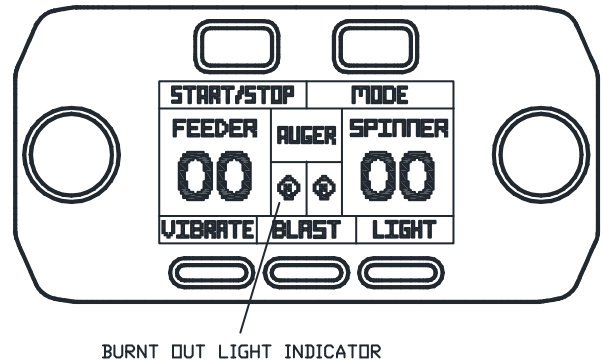


Figure 28.

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TOP SCREEN OPEN: Top screen is open. Spreader will not run until screen is closed. START/STOP button must be pushed again to re-start.

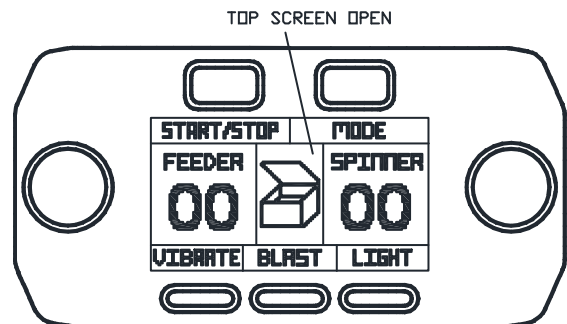


Figure 29.

G10798

Material Loading Procedure

WARNING

This spreader is restricted to the use of dry salt, sand, sand/salt, or cinder/salt mix only. Never run other materials through the spreader.

WARNING

The spreader must be securely mounted to the vehicle before loading. DO NOT exceed GVWR or GAWR with spreader and load at any time.

NOTE: These instructions are for recommended vehicle applications only. Go to **www.bossplov.com** for more information.

MATERIAL TYPE	WEIGHT RANGE (LBS PER CUBIC YARD)
Fine Salt	1890 - 2160
Coarse Salt	1215 - 1620
Coarse Sand (Dry)	2430 - 2970
Coarse Sand (Damp)	2970 - 3510
Cinders	1080

1. The spreader must be securely mounted to the vehicle before loading. Never attempt to mount a spreader with material in the hopper.
2. ALWAYS load spreader with Top Screen installed and closed. This will prevent large, impassable, chunks of salt, sand, or other materials from becoming clogged in the spreader.
3. Remove tarp before loading.
4. Fill spreader to top of side only. DO NOT at any time overfill spreader. Failure to comply could result in overloading of vehicle and spreader.
5. DO NOT exceed GVWR or Front and Rear GAWR of vehicle when loaded.

NOTE: For calculating purposes (Spreader & Load), Spreader empty weight is 600lbs and struck hopper capacity is 2 yards (approximate values).

WARNING

Keep hands, feet, and clothing away from moving spinner, auger, chain, and attachment points.

WARNING

Bystanders to stay a minimum of 25 feet away from operating spreader.

Operating the Spreader

1. Start vehicle. Display will light up when key is turned on.
2. Use the Feed Speed Dial and Spinner Speed Dial to adjust the speed of the feed motor and spinner motor. This will dictate how quickly material is pulled from the hopper and how far it is thrown.
3. If applicable, turn the vibrator indicator on (Vibrator will not start until Feed Motor is activated).
4. Access the mode screen and set the lights and vibrator to their desired level.
5. If conditions make it necessary, push LIGHT button to active rear lights.
6. ALWAYS check for bystanders in and around unit before starting.
7. Push the Start/Stop button to activate the spreading system.
8. Feed Speed and Spinner Speed can be adjusted on the fly.
9. You can use the Blast Feature to momentarily increase the speed of the Feed and Spinner motors. The motor will remain at full speed for two seconds and then pause for two seconds repeatedly until the Blast button is released.

NOTE: Blast feature will only work if dials are set at less than maximum (10).
10. When finished spreading, always push the START/STOP button to shut down the unit.
11. Back up to pile, swing out Spinner Assembly, and actuate the dump switch to empty the remaining material out of the hopper if necessary.

Freeing a clog

1. When "JAM" appears in either section indicating that one of the motors are overloaded, this is most likely due to a rock or other debris wedged in auger/pintle or under spinner disk. Do not turn unit off. System is designed to try to automatically free itself.
2. If you see "JAM STUCK", the controller has ceased trying to free itself. Push the START/STOP button to try again.
3. Repeated unsuccessful attempts will result in the controller going to a "Motor Cool" mode. Spreader will not function for 3 minutes while motors and controller are cooling down.
4. After 3 minutes the START/STOP button can be pushed again for another attempt at clearing the unit.
5. If clog cannot be cleared. Disconnect power at the spreader before attempting to manually free the unit.
6. When finished using the spreader, back up to pile, swing out Spinner Assembly, and actuate the dump switch to empty the hopper.

NOTE: DO NOT leave material in the hopper. Failure to empty the spreader could result in bulged hopper, freeze up, or other damage.

WARNING

ALWAYS disconnect Spinner Assembly before adjusting deflector. Failure to do so can result in personal injury.

Deflector Adjustment

The adjustable plastic deflector can be used to adjust the spread pattern as shown in Figure 30. The feeder and spinner motor speeds will also have an effect on the spread pattern.

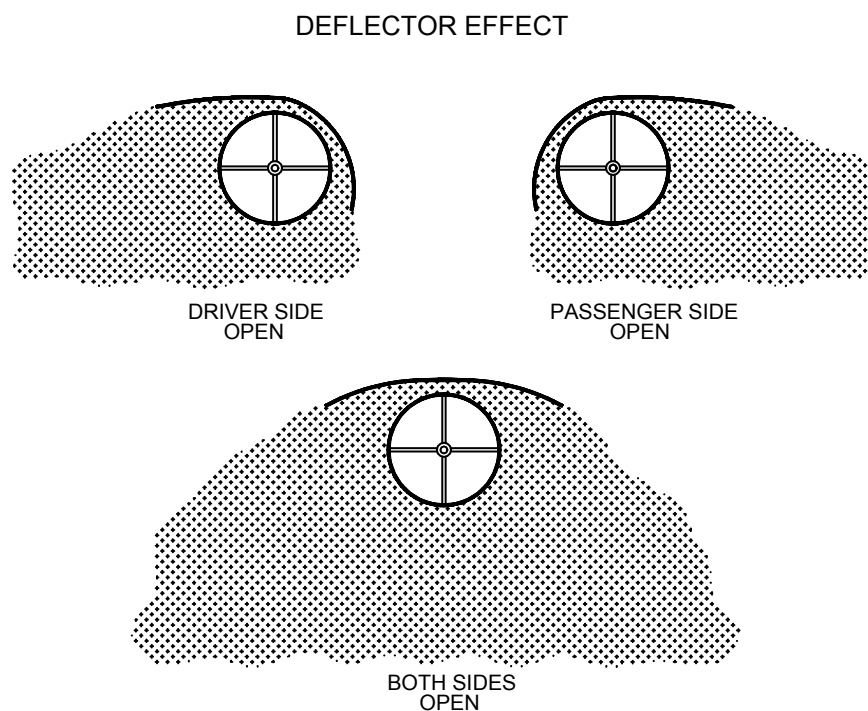


Figure 30. Deflector Adjustment

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Pintle Chain Restrictor Plate

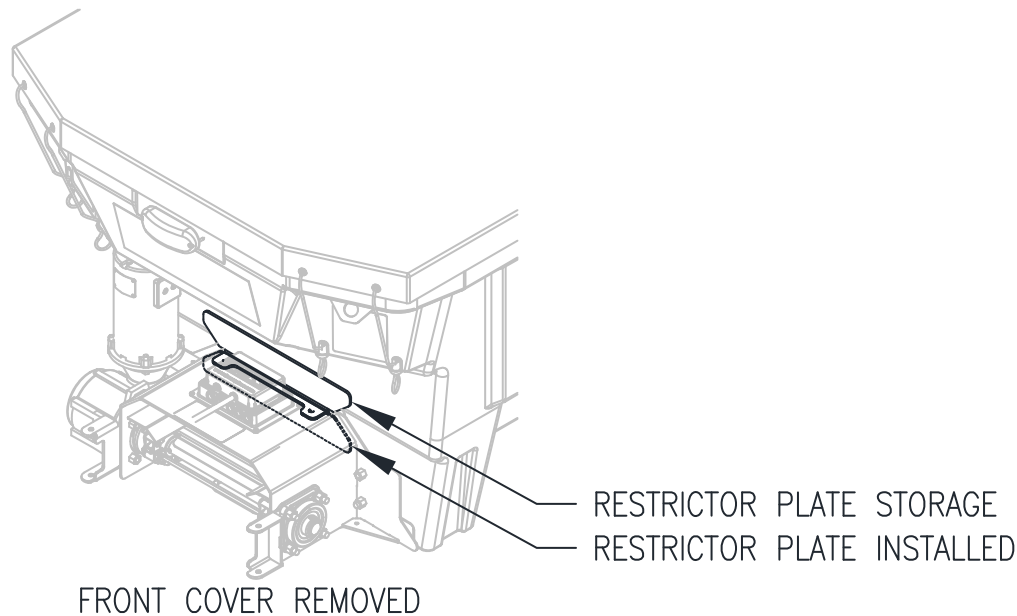


Figure 31. Restrictor Plate Installation

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WARNING

Failure to disconnect power to spreader could in personal injury or death.

1. Pintle Chain spreaders are shipped with a restrictor plate in "Stored" position as pictured in Figure 31. If flow of spreader is too fast, install the plate as follows.
2. Disconnect Power/Ground cable and Main Harness from spreader.
3. Remove plastic clips that hold front cover.
4. Pull cover back and unplug cover harness from main harness.
5. Set Cover aside to be reinstalled later.
6. Remove 3/8"-16 X 1" HHCS and 3/8"-16 Nylon Lock Nuts used to attach Restrictor plate.
7. Remove Restrictor Plate and position under top plate as shown.
8. Using 3/8"-16 X 1 HHCS and 3/8"-16 Nylon Lock Nuts previously removed, attach restrictor plate to new position.
9. Tighten hardware.
10. Position Cover to be re-attached.
11. Connect cover harness back to main harness.
12. Attach cover using plastic rivets previously removed.
13. Re-connect Power/Ground and Main Harness cable.

! WARNING

Failure to disconnect power to spreader could result in personal injury or death.

Pintle Chain Conveyor Tension

1. The chain comes factory adjusted but should be checked at installation, periodically, and prior to each use.
2. Disconnect Power/Ground cable and main harness to spreader before performing any work.
3. Check tension by pulling up on chain two to three feet from Take-Up Bearing. Chain should come up approximately 1 to 2 inches from conveyor deck.
4. If adjustment is required remove plastic covers from each side and loosen Jam Nuts.
5. Working on one side at a time, turn Take-Up Bolt counter clockwise 1 to 3 revolutions.
6. Repeat on opposite side.
7. Continue steps 5 and 6 until desired tension is reached.

NOTE: DO NOT over tighten chain. Too much tension can cause pre-mature wear and/or spreader failure.

8. Re-tighten Jam Nuts and replace plastic covers.

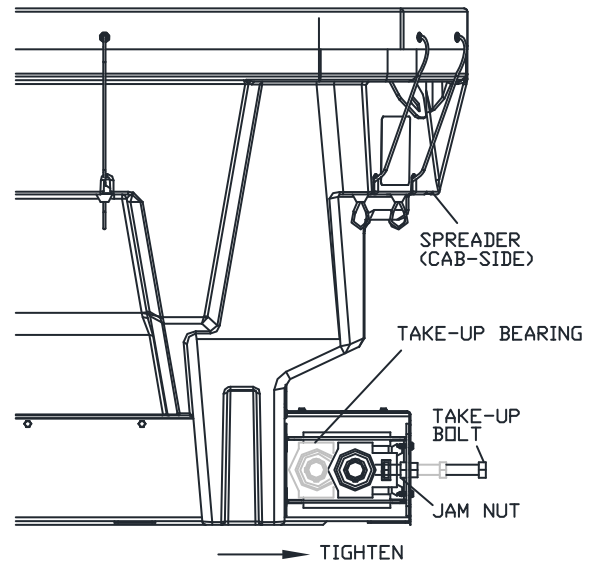


Figure 32. Bearing Adjustment

G10776

WARNING

Keep hands, feet, and clothing away from moving spinner, auger, chain, and attachment points.

Spreader Maintenance

1. Grease bearings and re-tighten hardware after every 20 hours of use.
2. Clean out tray should be emptied after every use.
3. To empty Tray, remove Spinner Assembly as described earlier.
4. Lift up on Clean Out Tray handle to clear mount holes and slide away from truck.

NOTE: Lifting tray from spreader will require two people.

5. Remove material from Tray.
6. Replace Tray in spreader making sure that bolts fall into containment holes.
7. Spreader should be emptied after each use.

NOTE: NEVER leave material in spreader. Material can freeze or compact resulting in damage to the unit.

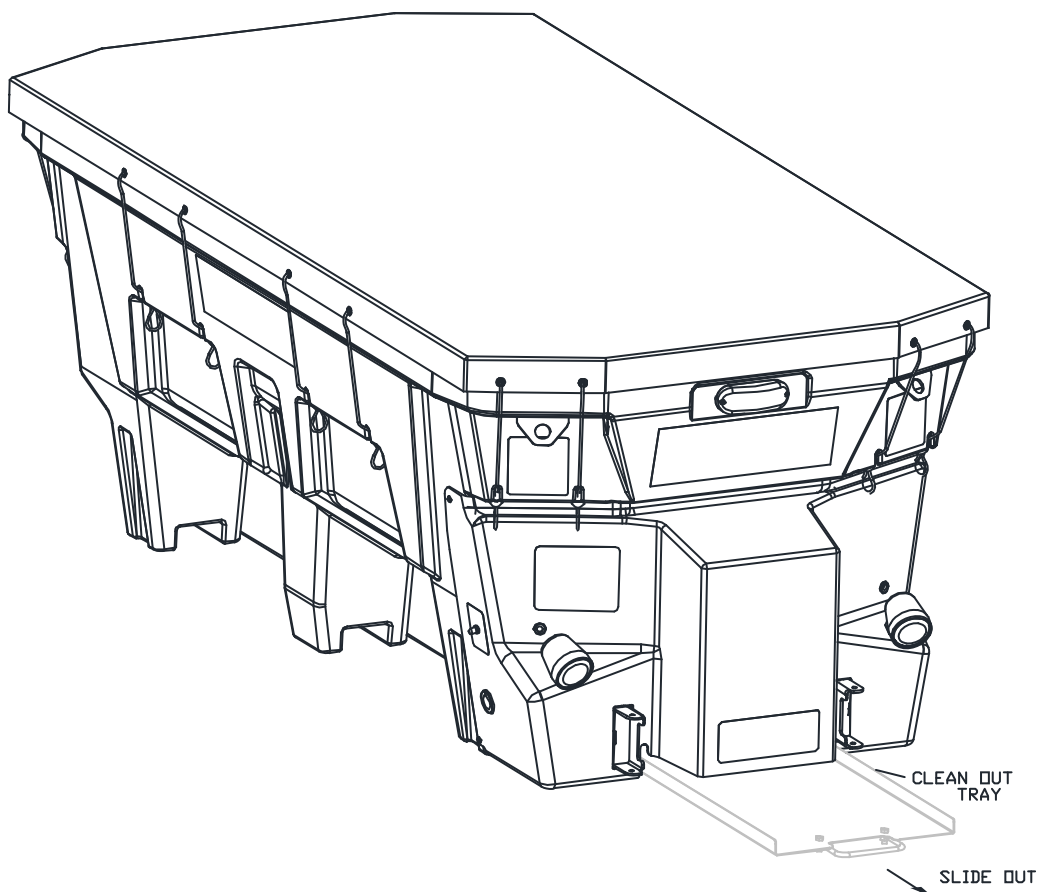


Figure 33. Clean Out Tray Removal

G10799

Spreader Storage

1. When finished using the spreader, back up to pile, swing out Spinner Assembly, and actuate Dump Switch to empty hopper.
2. Remove spreader from truck using Lift Bars as described in the installation section.
3. Wash and rinse entire unit.
4. Clean and grease all bearings and chain for storage.
5. Clean all exposed connectors and apply dielectric grease.
6. Remove control from truck and store in clean, dry place.

Glossary of Problems

1. No power to controller (LED Screen not illuminated).
2. Large X appears on screen, power to controller (LED Screen illuminated).
3. Highlighted battery symbol appears on front screen, power to controller (LED Screen illuminated).
4. Stuck Button indicator appears on screen, power to controller (LED Screen illuminated).
5. Jam appears on screen
6. Jam Stuck appears on screen
7. Motor Cool appears under Feeder or Spinner on screen.
8. One bulb appears on screen
9. Two bulbs appear on screen
10. Vib. Error appears on screen
11. Error appears under Feeder or Spinner on screen
12. Open Box appears on screen.
13. Feed Motor runs but Auger/Pintle does not turn.

PROBLEM	DIAGNOSTIC CHECK	RESULT
1. No power to controller (Display not on).	Check battery connections for corrosion and function.	Clean battery connections.
	Check the 2 amp in-line fuse in the vehicle side harness.	Replace fuse.
	Check that controller is plugged into vehicle side harness.	Connect.
2. Large X appears on screen, power to controller (LED Screen illuminated).	Check that spreader side and vehicle side harnesses are connected properly.	Connect.
	Check that Power/Ground plug is properly connected to spreader.	Connect.
	Remove cover and check if green LED light on module is on.	Check P/G connection @ bumper and under module.

Troubleshooting Guide

PROBLEM	DIAGNOSTIC CHECK	RESULT
3. Highlighted battery symbol appears on front screen, power to controller (LED Screen illuminated). controller.	Check battery and alternator.	Re-charge or replace.
4. Stuck Button indicator appears on screen, power to controller (LED Screen illuminated).	Disconnect display controller and re-connect. Check for repeat of problem.	Replace.
5. Jam appears on screen.	No action required. DO NOT turn spreader off. Spreader is trying to free itself.	NA
6. Jam Stuck appears on screen.	Spreader has tried to clear itself unsuccessfully.	Push Start/Stop button to re-start.
7. Motor Cool appears on screen.	Circuit that Motor Cool appears in is resting for 3 minutes.	Push Start/Stop button to re-start.
8. One burnt out bulb appears on screen.	Check connections at lights. Check for burnt out bulbs.	Reconnect or replace.
9. Two burnt out bulbs appear on screen.	Check connections at lights. Check for burnt out bulbs.	Reconnect or replace.
10. Vib. Error appears on screen.	Check connections at vibrators. Check for malfunctioning vibrator.	Reconnect or replace.
11. Error appears under Feeder or Spinner on screen	Disconnect power and re-connect.	If problem persists, call local dealer.
12. Open box appears on screen.	Check distance between top screen latch and plastic plate. Should not exceed 1/2".	Re-position latch or replace.
13. Feed motor runs but Auger/Pintle does not turn.	Check connection between gearbox and driveshaft.	Replace shear bolts.

Recommended Bolt Torque



DIAMETER / PITCH	GRADE 5	GRADE 8	GRADE 8.8	GRADE 10.9	18-8 STAINLESS STEEL	
					DRY	LUBRICATED
1/4-20	6	9			6.3	5.3
5/16-18	14	19			11	9.3
3/8-16	23	33			19.7	16.8
7/16-14	38	53				
1/2-13	56	80			43	37
9/16-12	82	116				
5/8-11	113	159			92	78
3/4-10	201	283				
M10 X 1.25			36			
M10 X 1.5				49		
M12 X 1.75				71		
M14 X 2.0				80		
M16 X 2.0				190		

ALL TORQUE VALUES ARE IN FOOT-POUNDS (FT.-LB.)

Figure 34.

G10803

NOTE: The torque values listed above are based on dry, coated bolts, variables such as oil, or other lubrications may appreciably alter these values and must be taken into consideration.

NOTE: IT IS IMPORTANT THAT ALL FASTENERS BE PROPERLY TORQUED TO ASSURE A SAFE OPERATING TAILGATE SPREADER. RE-TIGHTEN ALL FASTENERS AFTER 2 HOURS OF SPREADING.

BOSS PRODUCTS

COMMERCIAL WARRANTY

What this warranty covers:

This warranty covers defects in material and workmanship except as set forth below.

Who is covered:

The original purchaser from an authorized dealer.

For how long:

Complete Product: 2 years from the date of purchase.

Labor: 2 years from the date of purchase for complete product.

Parts: 1 year from the date of purchase. (no Labor)

What BOSS PRODUCTS will do:

BOSS PRODUCTS will, at its sole option, repair or replace defective parts at no charge.

What you must do for warranty service:

To obtain warranty service, purchaser must return the defective product to any authorized BOSS PRODUCTS dealer (preferably the one from whom the product was purchased) within the warranty period. Purchaser must be able to verify the original purchase date. All transportation costs to and from the dealer will be the responsibility of the purchaser. To locate the authorized BOSS dealer nearest to you, call toll free: (800) 286-4155.

What is not covered:

1. Expendable parts such as hoses, plow shoes, cutting edges, pins, nuts, bolts, blade guides, etc.
2. Products repaired or altered by anyone other than an authorized BOSS PRODUCTS dealer.
3. Products which have been subject to misuse, negligence, accident, improper installation, maintenance, care or storage.
4. Products mounted on vehicles other than those listed in the BOSS SNOWPLOW APPLICATION CHART AND SELECTION GUIDE.
5. BOSS PRODUCTS does not assume liability for damage to your motor vehicle resulting from the attachment or use of any BOSS products. Vehicle risk is the sole responsibility of the purchaser.

Limits of BOSS Products Liability are:

BOSS PRODUCTS' LIABILITY IS EXPRESSLY LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS. BOSS PRODUCTS SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER, EVEN IF DAMAGES ARE CAUSED BY THE NEGLIGENCE OR FAULT OF BOSS PRODUCTS. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty does not apply if you purchased your product for personal, family, or household use. In this case, refer to the BOSS PRODUCTS Limited Consumer Warranty.

BOSS PRODUCTS is a division of
Northern Star Industries, Inc.
PO Box 787
2010 The BOSS Way
Iron Mountain, MI 49801

(2013-2014)

BOSS PRODUCTS LIMITED

CONSUMER WARRANTY

What the warranty covers:

BOSS PRODUCTS warranties to the original retail purchaser of a BOSS product who purchases it for personal, family or household use, that the product will be free from defects in material and workmanship except as set forth below.

Warranty period:

Complete Product: 2 years from the date of purchase.

Labor: 2 years from the date of purchase for product.

Parts: 1 year from the date of purchase. (no Labor)

What BOSS PRODUCTS will do:

If, within the warranty period, the product is found to be defective, BOSS PRODUCTS will repair or replace, at its sole option, the defective parts at no charge to the original purchaser.

What you must do for warranty service:

To obtain service under this warranty, purchaser must return the defective product to an authorized BOSS PRODUCTS dealer (preferably the one from whom the product was purchased). The purchaser must establish the warranty period by verifying the original purchased date. All transportation costs to and from the dealer will be the responsibility of the purchaser. To locate the authorized BOSS dealer nearest to you, call toll free: (800) 286-4155.

What is not covered:

1. Expendable parts such as hoses, plow shoes, cutting edges, pins, nuts, bolts, blade guides, etc.
2. Products repaired or altered by anyone other than an authorized BOSS PRODUCTS dealer.
3. Products which have been subject to misuse or service, negligence, accident, improper installation, maintenance, care or storage.
4. Products mounted on vehicles other than those listed in the BOSS SNOWPLOW APPLICATION CHART AND SELECTION GUIDE.
5. BOSS PRODUCTS does not assume any liability for motor vehicle damage resulting from the attachment or use of any BOSS products. Vehicle risk is the sole responsibility of the purchaser.

Warranty limitations:

THIS WARRANTY IS OFFERED IN LIEU OF ANY OTHER EXPRESS WARRANTY.

THE DURATION OF ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.

BOSS PRODUCTS LIABILITY IS EXPRESSLY LIMITED TO THE REPAIR OF THE PRODUCT, INCLUDING LABOR AND REPLACEMENT OF DEFECTIVE PRODUCT. BOSS PRODUCTS SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER, EVEN IF DAMAGES ARE CAUSED BY BOSS PRODUCTS NEGLIGENCE OR FAULT.

State laws:

Some states do not allow exclusion of incidental or consequential damages or the limitations on how long an implied warranty lasts, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have the other rights which vary from state to state.

This warranty does not apply if you purchased your product for other than personal, family, or household use. If so, refer to the BOSS PRODUCTS Commercial Warranty.

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